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**David Lambert, John Gale, David Hartley, Zachariah Croll & Anush Hansen**

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# Understanding the Business Case for Telemental Health in Rural Communities

**David Lambert, PhD**

**John Gale, MS**

**David Hartley, PhD, MHA**

**Zachariah Croll, BA**

**Anush Hansen, MS, MA**

## Abstract

*Telemental health has been promoted to address long-standing access barriers to rural mental health care, including low supply and long travel distances. Examples of rural telemental health programs are common; there is a less clear picture of how widely implemented these programs are, their organization, staffing, and services. There is also a need to understand the business case for these programs and assess whether and how they might realize their promise. To address these gaps, a national study was conducted of rural telemental health programs including an online survey of 53 programs and follow-up interviews with 23 programs. This article describes the current landscape and characteristics of these programs and then examines their business case. Can rural telemental health programs be sustained within current delivery systems and reimbursement structures? This question is explored in four areas: need and demand, infrastructure and workforce, funding and reimbursement, and organizational fit and alignment.*

## Introduction

Persons in rural communities face substantial and chronic barriers to access to mental health services. These barriers have persisted over decades and include chronic shortages of psychiatrists,

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Address correspondence to David Lambert, PhD, Muskie School of Public Service, Maine Rural Health Research Center, University of Southern Maine, PO Box 9300, 34 Bedford Street, Portland, ME 04104-9300, USA. Email: david.lambert@maine.edu.

John Gale, MS, Muskie School of Public Service, Maine Rural Health Research Center, University of Southern Maine, Portland, ME, USA.

David Hartley, PhD, MHA, Muskie School of Public Service, Maine Rural Health Research Center, University of Southern Maine, Portland, ME, USA.

Zachariah Croll, BA, Muskie School of Public Service, Maine Rural Health Research Center, University of Southern Maine, Portland, ME, USA.

Anush Hansen, MS, MA, Muskie School of Public Service, Maine Rural Health Research Center, University of Southern Maine, Portland, ME, USA.

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psychologists, and other specialty mental health providers, long travel distance to services, and stigma about needing and using services.<sup>1-3</sup> Since the 1960s, policymakers and rural stakeholders have viewed telemental health, the delivery of mental health care at a distance using telehealth technology, as a promising way to address these barriers, particularly the shortage of mental health clinicians and long travel distances to care.<sup>2,4</sup>

Support and enthusiasm for using telemental health in rural areas have continued to grow, particularly as the quality and versatility of telehealth technology increases and its cost decreases.<sup>5,6</sup> Current policy initiatives appear to support the use of telemental health. The movement toward integrated physical and mental health care, long an important delivery model in rural areas,<sup>1</sup> is growing as care shifts from an individual focus to a population health focus.<sup>7</sup> The Affordable Care Act (ACA) has galvanized interest throughout the health care industry to use telehealth to help meet major goals of the ACA, including increasing access to care, enhancing the patient experience, and meeting the health needs of the population more efficiently.<sup>8</sup> The ACA includes an option and resources for state Medicaid programs to provide disease management through the use of health homes to targeted Medicaid beneficiaries with chronic health condition. Health homes can benefit from the use of telemental health to better coordinate and link primary, acute, behavioral, and social services.<sup>9</sup> A growing research literature suggests that telemental health can deliver effective assessment and treatment services to different populations and age groups.<sup>10,11</sup>

Although the technological feasibility and popularity of providing telemental health services have been clearly established,<sup>12-14</sup> we lack a clear understanding of how and where it is being used in rural areas and its continued viability within the changing rural health care environment. How widely implemented are telemental health programs in rural areas, in which organizational settings are they are located, and what services do they provide? Most importantly, we need to better understand the business case for rural telemental health programs within the changing rural health care delivery system to assess whether and how they might realize their promise. Within health care, a business case examines whether a given service or program addresses a need in a manner that is viable in the present and sustainable over time.<sup>8</sup> Many telehealth programs, including telemental health, start out with grant funding. However without adequate ongoing reimbursement of services and without fit and alignment between the service needs of the originating sites and the capacity of the health care systems within which they operate, programs may falter.<sup>15</sup>

In this exploratory study, the authors examine whether telemental health services can be sustained within the context of current rural health care delivery systems and reimbursement structures. This question is explored in terms of four areas: need and demand, infrastructure and workforce, funding and reimbursement, and organizational fit and alignment. A national study of telemental health programs was conducted in two phases. In the first phase, the authors identified and surveyed a convenience sample of rural telemental health programs. Participants were asked to confirm that their programs were still in operation and rendering telemental health services and to provide data on their organizational context, services provided, staffing patterns, and areas and populations served. Fifty-three programs completed the survey. In the second phase, semi-structured telephone interviews were conducted with administrators from 23 programs to understand the clinical and business environments in which they operated; their successes and challenges in establishing programs and delivering services, the contractual relationships used to develop services, and the opportunities and challenges of long-term sustainability. Descriptive findings (phase 1) from the study, primarily based on responses to the online surveys, were presented in a Research and Policy Brief.<sup>5</sup> This paper draws on findings from the in-depth telephone interviews of the 23 programs (phase 2) to examine the business case for rural telemental health programs.

The following questions are addressed:

1. What are the current assumptions about the role and capacity of telemental health in today's rural delivery systems?

2. How do these assumptions align with what rural telemental health programs are doing?
3. What does this suggest about the business case for telemental health programs?
  - Is there sufficient need and demand?
  - Is there sufficient infrastructure and workforce for providing telemental health?
  - Is there sufficient funding and reimbursement to support telemental health? What are the contractual relationships to provide services between the originating and distant sites?
  - Under what organizational arrangements does telemental health work well? Under what arrangements does it not work well?
  - How are telemental health programs aligned within health care organizations and delivery systems?
4. What are the opportunities and challenges for telemental health under health care reform?

### **Definition and history of telemental health programs**

The term “telemental health” is used broadly within the literature and refers to providing mental health care at a distance (i.e., from one site to another) using electronic technology.<sup>4,16</sup> It is used to overcome the challenges related to the shortage and poor distribution of providers and clinical resources.<sup>17</sup> Telemental health services are generally considered to be the same as those delivered in person.

For this study, a telemental health program provides direct “one-on-one” services through two-way video technology to treat a mental health condition through linkages between the distant (where the servicing provider is located) and the originating sites (where the patient is located).<sup>\*</sup> Distant sites may also be referred to as presenting, hub, specialty, provider/physician, referral, or consulting sites. The originating site may also be referred to as the spoke, patient, remote, or rural site.

In the 1960s, telemental health demonstrations established the possibility of delivering services between sites. Early telemental health programs were more complex (capital and labor intensive) than current programs and relied on technology less mobile than today.<sup>4</sup> Programs typically had “fixed studios” where the equipment to transmit the video and audio communication was located. Both the originating and distant sites required staff to manage the connection and transmission process and to address problems that frequently arose. Because transmitting technology was relatively large and expensive, it was often housed at academic medical centers or at larger medical institutions. Technology used in audio-visual interaction was considerably less sophisticated and offered in fewer sites than today.

The early telemental health programs of the 1960s were followed by continued but relatively limited activity in the 1970s and 1980s. The 1990s witnessed an increase in the number of pilot and demonstration programs that clearly established the improved technical feasibility of telemental health.<sup>4</sup> This technology has continued to improve and is more mobile, less expensive, and more reliable and may be located almost anywhere. The days of “fixed studios” are gone; equipment can be cost effectively located in small hospitals, clinicians’ offices, and their homes. Individuals can and do access telemental health care in a variety of rural settings.<sup>6</sup> As a result of these trends, the

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<sup>\*</sup> This definition of telemental health is consistent with services currently reimbursable through Medicare as well as some Medicaid and commercial payers which require a “one-on-one” encounter between the patient and provider. Collateral contact with family members or others without the patient present are typically not reimbursable. While some mental health stakeholders advocate for a broader use of technology (e.g., e-mail and telephone) to deliver behavioral health services, few third-party payers currently reimburse providers for delivering services using these broader technologies.

potential exists to deploy this technology to connect an increasing number of distant and originating sites to expand access to mental health services. Given this potential, this study is a timely and exploratory look at the characteristics and issues contributing to the sustainability of telemental health services and suggests opportunities to expand its use.

As technology improves and its costs decrease, interest continues to grow in using telehealth to expand access to mental health services to rural residents. However, some telehealth experts caution that current barriers to greater use of telehealth are less about the technology and more about providing services to patients across service delivery settings. At a 2012 Institute of Medicine telehealth workshop, the executive director of the American Telemedicine Association noted a number of barriers to the ongoing expansion of telehealth. These barriers included (1) money (limited reimbursement rates; fear of driving up costs; attracting technology companies seeking revenue but not understanding health care delivery), (2) licensure and practice regulations, and (3) hype (excitement and enthusiasm that exceed practice realities and challenges).<sup>18</sup> The authors' research suggests that telemental health addresses issues related to the distribution and location of providers as well as patient or provider travel distances (windshield time) but does not address system issues related to inadequate reimbursement rates, recruitment and retention difficulties, high rates of uninsured patients, and high no show rates.<sup>5</sup>

## **Methods**

This research was funded by the Federal Office of Rural Health Policy, Health Resources and Services Administration. The study protocol and design were reviewed and approved by the Institutional Review Board at The University of Southern Maine.

To support this study, the research team recruited an advisory panel of six national rural telehealth experts that included representatives from the Office of Applied Technology within the Federal Office of Rural Health Policy (FORHP), the American Telemedicine Association, two Telehealth Resource Centers, an academic telehealth/telemental program, and a regional telehealth network in a western state. These experts were convened by telephone at multiple times during the project to provide input to the study team.

In the first phase of the study, the authors compiled a convenience sample of telemental health programs by (1) reviewing grantee directories for relevant programs including the FORHP's Office of Applied Technology (OAT), Rural Health Outreach, Rural Network Development, and Telehealth grant programs; (2) soliciting nominations from the advisory panel of rural telemental health experts discussed above; (3) obtaining lists of programs from the OAT-funded regional Telehealth Resource Centers; and (4) conducting extensive web searches. Although not designed to build a comprehensive inventory, this approach identified 150 telemental health programs that were invited to complete a short online survey designed to collect data on their organizational context, services provided, staffing patterns, and the areas and populations served. Sixty programs responded to the survey (40% response rate). Fifty-three of these programs provide telemental health care; responses from these programs provide a useful profile of what current rural telemental health programs are doing.<sup>†</sup>

In the second phase of the study, members of the research staff conducted semi-structured telephone interviews with administrators from 23 programs to understand the business and clinical

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<sup>†</sup> A response rate of 40% was also obtained in a similar exploratory study of rural mental health outreach programs conducted by one of the authors for the Substance Abuse and Mental Health Services Administration a decade earlier.<sup>23</sup> Rural mental health outreach programs and rural telemental health programs are similar in that they are both relatively popular, usually started with grant funding, and face significant sustainability challenges when grant funding ends. There is not a definitive list or roster of either type of program, creating the need for exploratory study.

environments in which these programs operate (including the impetus to start the service, what specific services are offered, and how they are staffed), the technology and equipment needed, the contractual relationships between originating and distant sites, their successes and challenges in establishing programs and delivering services (including funding and reimbursement issues), and the prospects for and challenges of long-term sustainability. These interviews were conducted using semi-structured interview protocols developed with input from the advisory panel.

Each researcher conducted four to five interviews with stakeholders from assigned telehealth programs. Two senior members of the study team (including the principal investigator) trained the other members of the team in the use of the protocols by having them sit in on initial interviews and reviewing the process following the completion of the interview calls. They also reviewed the notes from the interviews conducted by other members of the team and provided feedback to them to improve the process. The interview team met regularly to share interview summaries, identify key take away points, and identify preliminary themes to guide the development of this article.

The data from the interviews were analyzed in several stages. Upon completion of the interview process, the principle investigator and another senior member of the research team analyzed and extracted the information from each program summary into a preliminary data table that included the following: program overview and history, service configuration (originating and presenting sites, services, staffing, and volume), service delivery/market niche, funding and reimbursement, technology used, and summary statement and outstanding issues. They also prepared a list of key themes and take away points.

This preliminary data table was reviewed by the research team to ensure the accuracy and consistency of the summary information. Where necessary, programs were contacted to clarify information. The data table described above was expanded as a result of this analysis to describe each program in terms of organizational context (independent, system, network), organizational type (e.g., psychiatric hospital, Critical Access Hospital, and community mental health center), provider types employed, services provided, patients served (e.g., children, adolescents, adults, and seniors), funding and reimbursement sources, and contracting arrangements including a discussion of administrative and billing responsibilities and any related user fees.

This analytical table and a draft write-up of the study findings and conclusions, including a list of “gaps and unanswered questions,” were reviewed with the advisory panel during a scheduled conference call. Members of the full research team participated in the teleconference with the advisory panel, which discussed interpretation of the data and findings. The advisory panel’s input and comments were used to refine the themes and key findings as reflected in this article.

## **Study limitations**

This was a qualitative exploratory study to assess issues related to the ongoing operation and sustainability of telemental health programs. It was not designed to be generalizable to all telemental health programs. Programs included in the second phase of the study were selected to represent a range of organizational types, programs, and geographic areas. Organizational settings included acute care hospitals, Critical Access Hospitals (CAHs), Rural Health Clinics (RHCs), Federally Qualified Health Centers (FQHCs), Community Mental Health Centers (CMHCs), academic medical centers, professional training programs, managed care programs, and private vendors.

## **The landscape of rural telemental health programs**

The 53 responses to our online survey provide a useful picture of rural telemental health programs today and are described in more detail in the study findings presented in a Research and Policy Brief.<sup>5</sup> The *organizational settings* of the online survey respondents include academic

medical centers (28%), CMHCs (9%), acute care hospitals (9%), private telehealth vendors (8%), FQHCs (6%), and RHCs (6%). The most common *uses* are direct patient care (94%), consultation between providers (72%), case management and coordination (46%), staff supervision (36%), and quality assurance activities (32%). In terms of *staffing*, 88% of telemental health programs have a psychiatrist, 44% have a clinical psychologist, 38% have a clinical social worker, and 30% have a psychiatric nurse practitioner. *Direct patient services* include medication management (82%), initial diagnostic evaluation (80%), psychotherapy (62%), crisis stabilization (44%), involuntary commitment assessment (28%), substance abuse treatment (26%), and crisis management (26%).

The programs responding to the survey provide services through a range of *organizational arrangements and linkages* that include freestanding/independent facilities, networks, and health/hospital systems. These organizational arrangement and linkages have important implications for operating and sustaining of telemental health services in rural areas, as they provide resources and technical assistance to support telemental programs and offer continuity of services and personnel. These arrangements are described below, and their implications for program operations and sustainability are discussed later in the paper.

*Freestanding/independent* Linkages involve relationships between one or more unrelated health care organizations that are not part of a formal network or health care system. This type of organization linkage generally requires the development of contracts between the originating and distant sites to govern the provision of services, establishment of service schedules, responsibility for billing for services and other administrative functions, administrative and clinical responsibilities, and rates for services (either on an hourly or per-visit basis).

*Network* Linkages involve the delivery of telemental health services through systems of collaborating health care organizations. Network linkages are formally structured relationships between participating organizations that provide, in a cost-efficient manner, administrative, clinical (such as telehealth), or support services commonly used by their members. Networks are commonly funded through membership or user fees. In exchange, participants receive access to administrative and/or clinical services and resources.

*Health/hospital system* Linkages involve the provision of telemental health and other services between organizational members of hospital-based systems. The use of telehealth technology allows health/hospital systems to deploy existing mental health resources, typically based at the parent location, to address the mental health needs of rural organizational members.

By providing an array of mental health services across diverse rural settings, telemental health programs allow persons in rural areas to receive services that would otherwise be unavailable to them including initial evaluations, on-going care, and crisis services.<sup>5</sup> Study respondents reported that their patients/clients and clinicians using telemental health technology were generally satisfied with the delivery of services through this modality. These findings support the promise and enthusiasm to expand the use of telemental health. However, findings from the study also raise concerns about the longer-term outlook for telemental health in rural areas. About half the programs in the study appear to serve only a modest number of patients. Although specific measures of volume were generally not available, the smallest programs served only several patients per week. Similarly, the scope of services in these small programs tend to be limited.

To better understand the opportunities and challenges for the continued growth of rural telemental health, the business case for it is explored in four areas: need and demand, infrastructure and workforce, funding and reimbursement, and organizational and system alignment. These areas



were selected based on the literature on the business case for telehealth<sup>8,15</sup> and the broader literature on the needs and challenges of rural mental health delivery.<sup>19–21</sup> The business case should also be considered from the perspective of the both originating and distant sites: for a telemental health program to be sustainable, the business case for both entities should be mutually beneficial.

## **Exploring the Business Case for Rural Telemental Health Programs**

### **Need and demand**

Mental health was among the first clinical areas where telehealth technology was used to expand access.<sup>4</sup> Rural communities suffer from historical disadvantages related to access to mental health services that are moderated through the use of telemental health technology, particularly those related to the distribution and location of providers and long travel distances. These disadvantages include a shortage of specialty mental health providers such as psychiatrists, doctoral-level psychologists, and masters-prepared counselors; long travel distances to available services for both patients and providers, as well as a lack of available public transportation; high rates of uninsurance and under-insurance (shouldering patients with high out of pocket costs); and ongoing stigma related to the use of specialty mental health services.<sup>2,22</sup> Despite policy efforts to address mental health supply issues, the scarcity and poor distribution of psychiatrists, doctoral-level psychologists, and other specialty mental health providers in rural America have remained unchanged for decades.<sup>20,21,23</sup> More recent studies document the continued existence of specialty mental health workforce and provider supply issues and other barriers to access including travel distances to access services, infrastructure, poverty, inability to pay, and substance abuse.<sup>24,25</sup> Although telehealth may not address all these issues, it may help to moderate, if not entirely solve, access issues related to provider distribution, travel distances, and stigma (by allowing patients to receive services in a setting not specifically identified as a specialty mental health service). At the same time, a limited but growing literature suggests that the quality of telemental health services is comparable to face-to-face services.<sup>14,16,26</sup>

Given the persistent problems described above, the clinical need for telemental health in rural areas remains as strong today as it was over 40 years ago when it was first used. An enduring question is how best to use scarce resources to meet this need? Where is this need the strongest and how might it be addressed with telemental health so that is viable and sustainable? While there is a shortage of mental health specialists for all rural age groups, it is particularly high for children and adolescents and older persons.<sup>19</sup> Six programs in the study use telehealth to treat multiple individuals in a single site (e.g., school-based clinics, nursing homes, or jails). Respondents noted that there are economic efficiencies associated with treating multiple individuals in a single site rather than individuals across different sites.

The ability of telehealth to address clinical rural mental health need requires translating this need into effective market demand. Achieving higher volume depends, in part, on adequate insurance coverage of individuals treated, as well as the ability to treat individuals in evolving and more complex service delivery systems. These issues are discussed below.

### **Infrastructure and workforce**

Capital funds and infrastructure development were challenging requirements in the earlier development of telemental health. Workforce requirements included clinicians to provide the care and technicians at both the distant and originating sites to ensure that transmission remained clear and in operation. Respondents reported that site managers and/or mid-level clinical staff often took on this responsibility. Technology has greatly improved over the past 40 years as has the quality of broad band connections. As described above, today's technology is more portable, requires less

maintenance and technical support, and is much less expensive than in the past. While most of the programs in the study required capital grants to get started or to enhance services, respondents noted that securing this funding was not nearly as daunting a task as in the past due, primarily, to greater funder awareness and acceptance of the use of telemental health technology.

Workforce issues may now be a larger challenge to telemental health programs than technology issues, particularly as these programs seek to grow. The use of telemental health technology can address the distribution of existing mental health providers across urban and rural areas and provide access to those providers wherever they are located. Telehealth technology does not explicitly address the overall adequacy of the mental health workforce or the practice, administrative, clinical, and financial challenges of delivering mental health services in rural communities. Realizing the promise of telemental health to expand access to care assumes that there is a sufficient pool of specialty mental health providers in urban areas who are willing and available to provide services using mental health technology. The reality is that the supply of specialty mental providers is not adequate to meet current mental health needs and that the workforce pipeline is not adequate to meet future needs.<sup>19,27,28</sup>

Two respondents made the point that younger clinicians are more comfortable with and willing to provide telemental health services than older clinicians in their systems. Since the overall mental health workforce is aging, this can be a barrier to expanded use of telemental health. There is also a potential opportunity cost. Because the number of mental health clinicians—particularly psychiatrists—are limited, the clinician providing a telemental health service to a patient located in a rural community may not be providing a face-to-face service in his or her own location.

Another issue is how a clinician incorporates the delivery of telemental health services into his or her practice. It is rare that a clinician's entire practice involves only telemental health. The volume and scheduling of telemental health services must be coordinated with the rest of the clinician's schedule.<sup>29</sup> One theme that arose in our interviews, particularly with smaller programs developed between independent organizations, is that it may become more difficult to balance practice schedules as the volume of rural telemental health services increases. For a telemental health program to be successful over time, the service has to be a priority and not sacrificed to the pressures of providing face-to-face services.

While most programs studied used in-state clinicians to provide telemental health services, at least two used clinicians from other states. The delivery of telemental health across state lines is complicated by state licensing regulations that typically require telehealth providers to be licensed in the states where patients receive care (the originating site).<sup>29</sup> Telehealth advocates have long noted that the time and expense of obtaining multiple state licenses serves as a barrier to expanded use of the technology, a theme echoed by participant in our study.

### **Funding and reimbursement**

The programs studied were able to secure start-up funding, often through capital grants, to develop and launch the program.<sup>5</sup> Consistent with national studies,<sup>29</sup> respondents identified reimbursement issues as a barrier to developing a sustainable telemental health program. Although their programs receive some level of third-party reimbursement, over half the respondents suggested that it might not be possible to sustain their programs without grant funding or supplemental support. Unfortunately, it was difficult to assess whether the challenge of sustaining services arose from reimbursement issues related to the adequacy of payment levels, inconsistency of reimbursement across third-party payers, or a combination of both. Productivity issues or the general challenges of providing mental health services in rural areas, discussed earlier in this article, may contribute to the concern with sustaining these programs.

Although there has been progress in obtaining third-party reimbursement for telemental health services (particularly from Medicare and Medicaid), respondents noted that there are gaps in coverage across third-party payers. Medicare has taken the lead in establishing specific criteria under which reimbursement is available for telemental health (and all approved telehealth services):<sup>30</sup>

1. The patient is seen from a defined originating site as defined by the Centers for Medicare and Medicaid Services (CMS) (i.e., offices of a physician or practitioner, hospitals, CAHs, CMHCs, skilled nursing facilities, RHCs, FQHCs, and hospital or CAH-based renal dialysis centers).
2. The originating site is located in a rural health professions shortage area (HPSA), a county located outside of a metropolitan statistical area (MSA), and in a HPSA located in a rural census tract of an MSA.
3. The encounter is performed at a distant site where the eligible health care provider is located (eligible providers include physicians, physician assistants, nurse practitioners, clinical nurse specialists, registered dietitians or nutrition professionals, nurse midwives, clinical psychologists, and clinical social workers).
4. The patient is present and the encounter involves interactive audio and video telecommunication.
5. The type of service provided is an identified medical eligible service.

Because originating sites incur costs during a telehealth encounter (e.g., costs of telehealth equipment, broad band access, use of space, and staff time related to scheduling and assessing patients), Medicare allows originating sites to bill for and be paid a facility fee to cover these costs using the Healthcare Common Procedural Coding System (HCPCS) code Q3014.<sup>30</sup> Medicare pays the originating site the lesser of its actual charge for the procedure code or set fee of \$24.63, subject to normal Medicare deductibles and co-payments. Distant sites (where the telemental health provider is located) bill for the service using established current procedural terminology (CPT) or Healthcare Common Procedure Coding System (HCPCS) codes with the appropriate following telemedicine modifier (GT for interactive audio and video telecommunications systems or GQ for Store and forward applications for services provided in Alaska and Hawaii only). Reimbursement for the provider delivering the service is the same as the current Medicare fee schedule amount for the service provided without telemedicine, subject to the normal Medicare deductibles and co-payments.

Although Medicaid reimbursement varies from state to state, the trend is to reimburse the distant provider for services if the service is covered on a face-to-face basis.<sup>31</sup> Currently, 46 states have provisions for the reimbursement for live video services.<sup>32</sup> Typically, mental health services are referenced in the Medicaid payment policies of these 46 states or at least not excluded from reimbursement from those states that do not specifically identify mental health as a reimbursable telehealth service.<sup>‡</sup> Services are generally coded and billed as are regular in-office services. Twenty-six state Medicaid programs allow for the payment of a facility and/or transmission fee to the originating sites.<sup>33</sup>

Reimbursement for telemental health services also varies from private health plan to plan with regulatory oversight for reimbursement set by individual states. Nearly half the states (24 states and the District of Columbia) have enacted laws mandating the coverage of telehealth services by private health insurance.<sup>33</sup> As with state Medicaid programs, private health plans vary in the extent to which they pay a facility and/or transmission fee to originating providers. Although progress has been made to secure reimbursement for telemental health services from Medicare, Medicaid, and private health plans, respondents still question whether these efforts have gone far enough to provide uniform coverage across third-party payers and states. Others felt that reimbursement rates were not adequate to cover the full costs related to the provision of services either by the originating or distant sites.

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‡ Although state Medicaid policies may use similar language, states vary in how telehealth is defined and reimbursed.

## **Alignment with health care organizations and systems**

The most significant challenges reported by the programs studied involved challenges of rural mental health practice that are not necessarily unique to telehealth. Programs are uncertain about their ability to maintain or enhance reimbursement and other sources of funding. Reimbursement challenges include uninsured/underinsured patients and patient “no shows.” These everyday challenges of rural mental health practice become more difficult for telemental programs as they evolve beyond initial grant funding and seek to become self-sustaining.

These issues are relevant for all telehealth programs but particularly for telemental health programs based in freestanding provider settings that contract with external entities such as academic medical program or private telemental health vendors. A common contracting method used by telemental health vendors is to sell access to psychiatry and behavioral health time on an hourly basis. Questions to be considered during the contracting process include who assumes the risk for no-shows, who assumes the costs of care to self-pay and uninsured patients, who bears the burden of bad debt, and who is responsible for administrative costs related to billing, third-party reimbursement, provider enrollment in health plans, and maintaining telemental health equipment and office space. Small providers wanting to be originating sites by contracting with telemental health vendors may not have sufficient financial and administrative resources to assume these responsibilities. Given the general challenges of rural behavioral health practice, the inability to absorb the financial risks of operating a telemental health service can be a significant barrier to expanded use of telemental health, particularly for small rural providers.

In the next section, the organizational arrangements and programs are examined and lessons learned from these programs discussed. The organizational arrangements that are most promising in terms of operating a viable and sustainable program are described.

## **Promising organizational arrangements that support delivery of telemental health services**

Among the programs, telemental health appears to work well when systems of care already control access to specialty behavioral health resources (i.e., employed as part of the their systems) and can use televideo technology to deploy those resources effectively for populations within their systems. Examples include the following:

- A health care system in the Upper Plains includes a psychiatric hospital, a CAH, three RHCs, two long-term care facilities, a day-care center, and a wellness center. Psychiatrists employed in the main psychiatric facility are used to provide direct care and consultative services in the system’s rural facilities. This eliminates the contracting issues and allows billing of services through the psychiatric hospital.
- A regional behavioral health authority manages a network of community-based agencies under contract with the state’s Department of Health Services to deliver publically funded comprehensive behavioral health services for Medicaid populations within large defined state regions. Since the authority is paid on a capitated basis, they are able to employ enough psychiatrists and other specialty mental health providers to serve their covered populations without regard to location or concerns about fee for service billing issues.

Telemental health also worked well where the originating site needs, the available specialty behavioral health resources, and the service capacity of distant sites align to benefit both parties and patients. Examples include the following:

- A telemental crisis service operates through a partnership of six CAHs and a CMHC in a mid-western state. The hospitals contract with the CMHCs for access to its 24-h access center for crisis consultations. Using the on-call staff of the access center, the CMHC uses telehealth technology to provide crisis evaluations for emergency department patients in the six CAHs. The

CMHC charges a fixed fee to the hospitals for each consultation. The project's cost to the CAHs has been offset by significant reductions in emergency department length of stay for patients in mental health crisis. This reduces costs to the hospital as well as the burden on emergency department staff. The hospitals report improved quality of care to these patients and reduction of unnecessary hospitalizations.

Telemental health also works well when a third-party entity takes over the “brokerage” function to link originating sites with presenting sites. This arrangement maintains the traditional separation of practices, does not shift excessive risk from one provider to another, and eliminates the need for contractual agreements between the originating and distant sites. In the example below, both the distant and originating sites are members of the network. The network maintains a calendar of availability of distant telehealth providers. Originating sites can access available distant providers based on availability.

- A southern statewide telehealth network serves a “brokerage” function by connecting originating and presenting sites through a membership arrangement. Participants pay membership fees to access network resources. The network connects originating sites with providers willing to deliver services using televideo technology. The network also provides technical assistance and operational support to make the system work. This network's success is enhanced by a state regulation requiring all third-party payers to reimburse for any telemedicine service that is reimbursed on a face-to-face basis. The network shares the risk of providing telemental health services across both originating and distant sites. While a unique political and funding environment enabled the creation of this network, two neighboring states are exploring the use of this model.

### **Organizational arrangements that challenge the expanded use of telemental health services**

Some organizational and contractual arrangements can be problematic for small providers who want to use telehealth technology to expand access to mental health services. This may occur when originating sites contract with individual providers or small groups to provide services or when the financial and administrative risk of providing telemental health is inordinately assumed by small originating sites that may be financially vulnerable themselves. A telemental health service can work well under the first scenario. However, this situation can leave the program vulnerable to service disruption when contracting providers are unavailable due to the demands of their own practice, are on vacation or personal leave, or terminate the agreement (due to retirement, relocation, or competing practice demands). When a provider ends their agreement, it is often difficult to recruit a replacement contracting provider.

It may be difficult for a small provider to deliver or expand telemental health services if they have assumed too much risk. As described, one barrier stems from the limited resources of some originating sites to assume the risks related to the financial and administrative costs of providing or expanding telemental health services. A second barrier is that program and policy regulations prohibit RHC and other federally designated provider types from billing directly for telemental health services (the originating fee is a covered service, but the telemental health services are not). Examples include the following:

- A hospital district with a RHC in the northwest contracted with a private practice psychiatrist to deliver telemental health services. Over time, the program contracted with four different psychiatrists. When one left, they needed to find another which was often difficult. The service was suspended when the program was not able to replace the last psychiatrist to leave.
- A regional community health center in a New England state used televideo to provide access to child psychiatry services for a small number of children through an agreement with a psychiatric

hospital located 100 mi away. The service was well accepted by the children, their parents, and the provider. However, the hospital discontinued the service when the servicing psychiatrist relocated to a new practice and the hospital's remaining child psychiatrist did not have the capacity to continue the service.

- A RHC in a New England state negotiated with a private vendor to develop telemental health services. The hourly contracting arrangement was acceptable to the RHC and made financial sense based on its business plan for the service. However, negotiations broke down when both parties realized that the clinic was prohibited from billing for the service because telemental health is not a covered service under the RHC program's guidelines.

## **Implications for Behavioral Health: Opportunities and Challenges for Telemental Health**

Although telemental health is being increasingly used to expand access in rural areas, it cannot fully realize its promise without efforts to overcome the barriers described in this article. First, it is important to address the underlying financial and organizational challenges involved with delivering mental health services in rural communities. Telemental health can help address challenges related to the location and distribution of specialty mental health providers and reduce patient and/or provider travel barriers. However, challenges common to providing on-site (face-to-face) rural mental health services remain. These challenges include poor reimbursement rates (particularly from Medicaid and some commercial carriers), recruitment and retention difficulties, high rates of un-insurance, and high no show rates. The ability of telemental health services to overcome chronic rural behavioral health access issues in the current health care environment is likely to be limited until these fundamental system issues are addressed.

Having sounded this caution, it is likely that telemental health can and will play an important role under the payment and service delivery models established or promoted under the ACA. The ACA encourages financing structures that do not depend on fee-for-service reimbursement but rather focus on population and value-based reimbursement. The goal is to eliminate the negative incentives provided by fee-for-service reimbursement systems (e.g., over-provision of services, focus on acute care rather than preventive and wellness services, and inefficient use of resources) and encourage the development of systems of care that focus on keeping their covered populations well (as opposed to solely treating the sick) through appropriate allocation of scarce health care resources. The hope and expectation is that access to care and the patient experience will be maximized, that costs will be managed, and that the health needs of the population will be met within the constraints of balancing these aims. This study suggests that telemental health has the potential to help advance and balance these aims.

This study supports the clinical and business case for the use of telemental health services to expand access to care in rural communities. Televideo technology can be used to deliver mental health services efficiently with quality and effectiveness comparable to face-to-face services. The real challenge is that fee-for-service reimbursement policies have not kept pace with the business case. Current payment policies do not clearly support the expanded use of telemental health. The inadequacy of fee-for-service reimbursement to sustain the expanded use of telemental health programs is complicated by system-level issues including workforce supply challenges, recruitment and retention challenges, and high rates of un-insurance and under-insurance. Until these issues are addressed, telemental health programs will likely continue to grow incrementally and serve more people. Telemental health will not, however, achieve its full promise unless the underlying reimbursement, administrative, and provider supply issues that constrain its wider use are addressed.

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## Compliance with Ethical Standards

*Conflict of Interest* The authors disclose no conflicts of interest.

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